



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/615,136

07/08/2003

Koichi Toba

524941/0018

8106

7590

09/29/2004

Lawrence Rosenthal
Stroock & Stroock & Lavan LLP
180 Maiden Lane
New York, NY 10038

EXAMINER

VO, ANH T N

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,136

Applicant(s)

TOBA ET AL.

Examiner

Anh t.n Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10, 1/11 and 3/11-10/11 is/are rejected.
- 7) ☒ Claim(s) 2 and 2/11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2861

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The references cited on PTO 1449 have been considered

Specification

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

Art Unit: 2861

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claim a is rejected under 35 USC 102 (b) as being anticipated by et al. (US Pat. 5,500,663).

Ujita et al. disclose in Figures 4 and 7 an ink cartridge comprising:

- an ink accommodating portion (1) operable to hold ink;
- an air passage (2) operable to make said ink accommodating portion (1) communicate with atmosphere; and
- a valve mechanism , provided in said air passage (2), including an air-releasing valve member (5) operable to seal a communication hole provided in a partition wall that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (5) has a contact portion operable to open said air passage (2) by receiving an external force from said atmosphere side to said ink-accommodating-portion side.

Claim 1 is rejected under 35 USC 102 (b) as being anticipated by Pollacek et al. (US Pat. 5,040,002).

Pollacek et al. disclose in Figures 1 and 6 an ink cartridge comprising:

- an ink accommodating portion (22) operable to hold ink;
- an air passage (32, 42) operable to make said ink accommodating portion (22) communicate with atmosphere;
- a valve mechanism (20), provided in said air passage, including an air-releasing valve member (38) operable to seal a communication hole (42) provided in a partition wall (36) that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-

Art Unit: 2861

accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (38) has a contact portion operable to open said air passage (32, 42) by receiving an external force from said atmosphere side to said ink-accommodating-portion side.

Claim 1 is rejected under 35 USC 102 (e) as being anticipated by Higuma (US Pat. 5,511,168).

Higuma discloses in Figures 7a-7b an ink cartridge comprising:

- an ink accommodating portion (1) operable to hold ink;
- an air passage (1B) operable to make said ink accommodating portion (1) communicate with atmosphere;
- a valve mechanism (30), provided in said air passage, including an air-releasing valve member (32) operable to seal a communication hole provided in a partition wall that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (38) has a contact portion operable to open said air passage (1B) by receiving an external force from said atmosphere side to said ink-accommodating-portion side.

Claim 1 is rejected under 35 USC 102 (a) as being anticipated by Sakai (JP Pat. 2002-205414).

Sakai discloses in Figures 1-4 an ink cartridge comprising:

- an ink accommodating portion (1) operable to hold ink;
- an air passage (7, 8) operable to make said ink accommodating portion (1) communicate with atmosphere;
- a valve mechanism (11), provided in said air passage, including an air-releasing valve member (11a) operable to seal a communication hole (8) provided in a partition wall (6) that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-

accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (11a) has a contact portion (10) operable to open said air passage (7, 8) by receiving an external force from said atmosphere side to said ink-accommodating-portion side.

Claim 1 is rejected under 35 USC 102 (a) as being anticipated by Kogo et al. (JP Pat. 04-232069).

Kogo et al. disclose in Figures 2-4 an ink cartridge comprising:

- an ink accommodating portion (41) operable to hold ink;
- an air passage (41a) operable to make said ink accommodating portion (41) communicate with atmosphere;
- a valve mechanism (71), provided in said air passage, including an air-releasing valve member (71a) operable to seal a communication hole (41a) provided in a partition wall that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (71a) has a contact portion operable to open said air passage (41a) by receiving an external force from said atmosphere side to said ink-accommodating-portion side.

Claims 1 and 3-10 are rejected under 35 USC 102 (e) as being anticipated by Miyazawa et al. (EP Pat. 1199178A1).

Miyazawa et al. disclose in Figures 13-18, 26B, 32A-32B, and 35-38 an ink cartridge comprising:

- an ink accommodating portion (162') operable to hold ink;
- an air passage (196, 198, 201, 220) operable to make said ink accommodating portion (162') communicate with atmosphere;

Art Unit: 2861

- a valve mechanism, provided in said air passage, including an air-releasing valve member (225) operable to seal a communication hole (220) provided in a partition wall that separates an ink-accommodating-portion side, that is a side close to said ink accommodating portion, from an atmosphere side, that is a side close to said atmosphere, in a direction from said ink-accommodating-portion side to said atmosphere side, wherein said air-releasing valve member (225) has a contact portion (225a) operable to open said air passage (220) by receiving an external force from said atmosphere side to said ink-accommodating-portion side (Figure 32B);
- a pressing member (222) having an elastic force for pressing said air-releasing valve member (225) in a direction from said ink-accommodating-portion side to said atmosphere side (Figure 32A);
- a hammer (234) operable to come into contact with said contact portion (225a) of said air-releasing valve member (225) to open said air passage (220), said hammer being pivotable around an axis (234a) (Figures 32B);
- wherein said hammer (234) pivots around said axis in a direction perpendicular to a mounting direction of said ink cartridge onto a recording apparatus;
- an air-releasing valve pressing member (222) operable to move substantially in parallel to a mounting direction of said ink cartridge onto a recording apparatus, and said contact portion is pressed by said air-releasing valve pressing member to open said air passage.
- wherein said air-releasing valve member (225) has a projecting portion extending along said mounting direction of said ink cartridge onto said recording apparatus to project from said communication hole toward said atmosphere side, said projecting portion being formed to be pressed by said air-releasing valve pressing member (222);
- a pressing member (222) having an elastic force for pressing said air-releasing valve member (225) in a direction of said mounting direction of said ink cartridge onto said recording apparatus; and
- wherein said contact portion (225a) is pressed by said hammer (234) via a film (258) (Figures 32a-32B).
- wherein a face of a room accommodating said air-releasing valve pressing member, that is pressed against said recording apparatus, is sealed with a film.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1/11 and 3/11-10/11 are rejected under 35 U.S.C. 103(a) as being unpatentable over et al Miyazawa et al. (EP Pat. 1199178A1) in view of Umemura (US Pat. 6,283,587).

Miyazawa et al disclose the basic features of the claimed invention were stated above but do not disclose an outer packaging member operable to cover said ink cartridge, said outer packaging member being like a bag, wherein a pressure inside said outer packaging member is reduced to seal said ink cartridge.

Umemura discloses in Figures 6-8 an outer packaging member (4) operable to cover said ink cartridge (2), said outer packaging member being like a bag, wherein a pressure inside said outer packaging member is reduced to seal said ink cartridge (column 15, lines 49-50).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Umemura into the Miyazawa ink cartridge for the purpose of sealing the ink cartridge

Allowable Subject Matter

Art Unit: 2861

Claims 2 and 2/11 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink cartridge comprising a breathable filter that repels liquid from the atmosphere, and the valve mechanism that is provided between the filter and the ink accommodating portion in the combination as claimed.

CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo. whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M. to 6:00 P.M. The fax number of this Group 2861 is (703)872-9306.

A handwritten signature in black ink, appearing to read 'ANH T.N. VO', with a long horizontal flourish extending to the right.

ANH T.N. VO
PRIMARY EXAMINER

September 25, 2004